MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2015/2016

DOM5018 – OPERATIONS MANAGEMENT

(For Diploma Students Only)

11 MARCH 2016
3.00 p.m – 5.00 p.m
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 9 pages excluding the cover page.
2. Answer **ALL** questions for section A, B and C.
3. Answers for Section A and B should be shaded in the OMR sheet.
4. Answers for Section C should be written in the answer booklet provided.

SECTION A: MULTIPLE CHOICE QUESTIONS (each question carries 1 mark). Answers for this section should be shaded on the OMR sheet.

1. Which of the following will **NOT** a factor that can affect the location decision of a firm?
   A. Lower wage rate.
   B. Political risks, values and culture of a country.
   C. Proximity to the transportation agent.
   D. Proximity to customers.

2. Which of the following is **NOT** true regarding Toyota Production System (TPS)?
   A. TPS stresses in continuous improvement of all processes in the firm.
   B. TPS emphasises respect for their employees as they are important knowledge assets for the firm.
   C. TPS ensures that only all external customer-supplier relationship are direct.
   D. TPS ensures that all work are done completely specified to the content, sequence, timing and outcome.

3. The followings are reasons to globalise **EXCEPT** _____.
   A. to understand the differences on how businesses are handled in different countries
   B. to locate the firm's facilities closer to unique resources
   C. to increase interaction with foreign customer and suppliers in order to seek for new opportunities
   D. to ensure that lower wage rates are found in order to increase the indirect cost of the product

4. Which of the following is **NOT** a supply chain strategy?
   A. Farm' Best Berhad engages in vertical integration and breed their own chicken to be used in their daily production.
   B. Lelong.com engages in the virtual company strategy by bringing together a variety of suppliers to provide services and products to their customer.
   C. Perfect Food Manufacturing (Julie's Biscuit) engages with many suppliers for flour and sugar in the production of biscuits.
   D. Perodua Myvi is known to be a successful product of a joint venture between Malaysia automotive and Japanese automotive industry as the brand was diluted since the collaboration.

5. The _____ shows the exploded view of the product and details relative to the how to assemble to product.
   A. assembly chart
   B. route sheet
   C. work order
   D. assembly drawing

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6. Which of the following firm engages in a process focus strategy?
   A. Mahkota Specialist Hospital.
   B. Berjaya Starbucks Coffee Company Sdn. Bhd.
   C. Tupperware Brands Malaysia.
   D. Toshiba Malaysia.

7. The followings are true regarding the supply chain **EXCEPT** _____.
   A. E-procurement uses the internet to facilitate purchasing and often utilises online catalogs and online auctions
   B. the cost-based price model of vendor selection method determines vendors based on published and auction prices
   C. trucking's advantage is the flexibility in moving vast majority of manufactured goods while the railroads are less flexible but capable of carrying large loads
   D. outsourcing logistics are known as third-party logistics and are able to reduce costs and improve the delivery reliability and speed

8. When Dell perform quality checking on their computers, they are reducing _____.
   A. appraisal costs
   B. prevention costs
   C. internal failure costs
   D. external failure costs

9. Which of the following is **NOT** a strategic operation management decision generally made by operations manager in the operation management function in Air Asia Sdn. Bhd.?
   A. The design new in-flight services.
   B. Managing the financial statements of Air Asia Sdn. Bhd.
   C. Ensuring that in-flight food and drink supplies are sufficient.
   D. Ensure air hostesses and air stewardess are well versed with their duties.

10. The followings are all methods used to evaluate location alternatives **EXCEPT** _____
    A. the location cost-volume analysis
    B. the delivery method
    C. the factor rating method
    D. the center of gravity method

11. Which of the following is **NOT** a step in the forecasting process?
    A. Selecting the quality of products that are to be forecast.
    B. Determining the time horizon of the forecast.
    C. Selecting the forecasting model.
    D. Determining the use of the forecast.

Continued.....

12. Each of the following are used as a motivation and incentive for workers **EXCEPT** _____.
    A. disciplinary letter
    B. bonuses
    C. gain sharing
    D. incentive plans

13. Which of the following is **NOT** a production technology?
    A. Automatic Identification System (AIS).
    B. Value-Stream Mapping.
    C. Robots.
    D. Automated Storage and Retrieval Systems (ASRSs).

14. Which of the following business adopts the multidomestic strategy?
    A. Infineon Technologies.
    B. Coca-Cola.
    C. McDonald's.
    D. Nestle.

15. When the internal auditors of Top Glove Corporation Berhad perform inventory counting and recording on a periodic basis, it is known as _____.
    A. maintaining inventories
    B. ABC analysis
    C. cycle counting
    D. record accuracy

16. When Samsung is researching a new handphone design, the product is known to be in the _____ stage and the firm experiences _____ cash flow.
    A. growth; positive
    B. introduction; positive
    C. growth; negative
    D. introduction; negative

17. Which of the following is **FALSE** regarding total quality management (TQM)?
    A. Shewhart's PDCA Model is known as a one of the TQM concepts as it represent a continual improvement for all operation processes and work centers.
    B. Taguchi concepts utilises engineering and experimental design methods to improve product and process design.
    C. Pareto chart, flowchart and statistical process control charts are some of the tools of TQM.
    D. Employee empowerment can be achieved by building close, supportive networks and moving more responsibilities to the employees.

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18. _____ is where products are remained in one place and workers and equipment are brought to the site in order to assemble the product.
    A. Retail slotting layout
    B. Product oriented layout
    C. Process oriented layout
    D. Fixed position layout

19. Which of the following is **NOT** true regarding the types of layout of a firm?
    A. Office layout often group workers and equipment together in order to ensure that the flow of information is not disrupted.
    B. Chocolates and mineral water are placed near the cashier in Aeon Jusco as they are known as high impulse and power items.
    C. The objective of warehousing layout is to optimise the trade-offs between product costs and the costs associated with warehouse space.
    D. Cross docking moves materials from the receiving department straight to the shipping department without storing the item in the warehouse.

20. _____ refers to all activities involved in keeping a system's equipment in working order while _____ is the probability that a machine will function properly for a specified time.
    A. Control; relevant
    B. Relevant; control
    C. Maintenance; reliability
    D. Reliability; maintenance

[TOTAL 20 MARKS]

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SECTION B: TRUE/FALSE QUESTIONS (each question consists of 1 mark).
Answers for this section should be shaded on the OMR sheet.
Mark "A" for the TRUE statement and "B" for the FALSE statement.

21. Basic economic order quantity (EOQ) model aims to minimise the sum of setup and holding costs while quantity discount model is used to purchase large quantities in order to obtain reduced price.

22. Hard Rock Cafe competes using the differentiation strategy as they provide a unique dining experience to their customer with good food and a enjoyable environment.

23. The make and buy decision and is a choice between internal production and utilising external sources while outsourcing concerns transferring traditionally internal activities of a firm to an outside vendor.

24. A medium-range forecast often deals with important management issues such as planning and product development and plant and production process decisions.

25. Throughput refers to the time it takes to move an order from receipt to delivery and back while the manufacturing cycle time is known as the time between the arrival of raw materials and the packing of the finished orders.
26. The objective of location strategy is to minimise the costs of the location for the firm.

27. Operation managers are responsible for developing safe and low quality products.

28. One of the major challenges of mass customization is that the firm needs to have a very rigid and tight design and production process in order to ensure all products are produced on time.

29. Service blueprinting focuses on customer and provider interaction and it can be found in the service sectors

30. Flow diagrams, process charts and activity charts are used identify the movement of individuals and materials in a production process.

31. Service quality is often easier to measure than the quality of goods and customer responses are obtained are often accurate and consistent.

32. After SWOT analysis is done, the firm should implement the appropriate strategies to enhance their internal strength and external opportunities and to minimise their internal threats and external weaknesses.

33. Assembly line balancing aims to minimise the balance between machines and personnel while meeting required output.

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34. Time studies are used to estimate the amount of time a worker spends on various tasks and are often used in setting staffing levels and to estimate labor costs.

35. In order to improve service productivity, banks often engages in separation strategy, where customers are directed to specific counters for specific services.

36. The location decision in the industrial sector focuses on maximising profit while location for decision in the service sector focuses on minimising costs.

37. Mamee Berhad adopts the team approach when the firm organizes for product development, where duties and responsibilities are distinctively defined to each department.

38. Benchmarking is a practice where the firm chooses any competing firm as a standard for performance.

39. Work cells reorganizes people and machines into groups in order to focus on a single product of a certain product group.

40. Preventive maintenance are routine inspections and servicing to ensure machines are in good condition while breakdown maintenance are emergency repairs on failed equipment.

[TOTAL 20 MARKS]

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SECTION C: STRUCTURED QUESTIONS (60 Marks)

Answer ALL questions. Answers should be written on the answer booklet provided.

QUESTION 1

Operations management (OM) is known as a set of activities that create value in the form of goods and services by transforming inputs into outputs and are used in both the manufacturing and service sectors.

a) List down the basic management functions of a operation manager. (2.5 marks)

b) Identify **four (4)** differences between goods and services. (4 marks)

c) List the **three (3)** essential functions of a firm when organizing to product goods and services. (1.5 marks)

d) Angeline owns a home-based business making necklaces and bracelets that are sold in the morning and night markets. She currently spends 4 hours per day making 10 necklaces and another 4 hours per day making 20 bracelets.

i. Compute her labour productivity for necklaces. (2 marks)

ii. Compute her labour productivity for bracelets. (2 marks)

iii. Angeline is thinking of purchasing a jewelry machine that can help to increase the quantity of her output. If she purchases this machine, she will be able to increase her products to 16 necklaces and 32 bracelets. What is her new labour productivity for both the necklaces and the bracelets? (4 marks)

iv. What is Angeline's percentage increase in productivity for both the necklaces and the bracelets? (4 marks)

[TOTAL 20 MARKS]

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QUESTION 2

Forecasting is known as a process of predicting the future events of the firm and is used frequently as an underlying basis for most business decisions concerning the production process, the quantity of inventory and the type of facilities needed.

a) **Exhibit 1** shows the sales of tomato biscuits of Happy Biscuit Sdn. Bhd. over the past 8 months in the year 2015.

Month	Sales (RM)	Month	Sales (RM)
March	1500	July	1100
April	1080	August	1440
May	980	September	1580
June	1230	October	1275

Exhibit 1

Based on **Exhibit 1,**

i. Compute a 3-month moving average forecast for August 2015. (2 marks)

ii. Compute a 4-month moving average forecast for October 2015. (2 marks)

iii. Compute a weighted moving average forecast for June 2015 using a weight of 4 for the most recent month, 2 for the next most recent and 1 for the next. (4 marks)

****Note: state your answer in TWO (2) decimal points for above questions.***

b) Explain **three (3)** different types of forecasts. (6 marks)

c) Identify the **four (4)** types of qualitative methods that are commonly used among businesses. (2 marks)

d) Time series forecasting are done by observing responses at a regular time period and assumes that factors influencing the past and the present will continue to influence the future. Identify the **four (4)** components of time series forecasting. (2 marks)

e) Differentiate between a short-range forecast and a long-range forecast. (2 marks)

[TOTAL 20 MARK]

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QUESTION 3

Just-in-time (JIT) is well known to be a powerful strategy for improving the operations of the firm. JIT features materials arriving where they are needed when they are needed and are used to identify problems and driving out waste in order to reduce costs.

a) JIT partnerships exists when a supplier and purchaser work together to remove waste and drive down costs. Identify the **four (4)** goals of JIT partnerships. (2 marks)

b) JIT layouts are also crucial to the JIT system. List down the **six (6)** important JIT layouts that a firm should pay attention to when the JIT system is implemented. (3 marks)

c) Identify the **five (5)** concerns of suppliers in a JIT partnership. (2.5 marks)

d) List the 5Ss. (2.5 marks)

[TOTAL 10 MARKS]

QUESTION 4

The human resource strategy aims to manage labor and design jobs so that people are effectively and efficiently utilised. This is essential as good human resouce management can create a reasonable quality of work life for the workers where mutual commitment and trust are uphold in the workplace.

a) Explain the **two (2)** employment stability policies. (4 marks)

b) What are the **four (4)** types of job expansion? (2 marks)

c) Define self-directed team. (2 marks)

d) Identify the **four (4)** types of work schedule. (2 marks)

[TOTAL 10 MARKS]

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